Opportunities in Woody Biomass Utilization

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In partnership with:
USDA Forest Service Region 5

http://ucanr.org/WoodyBiomass
Overview

• Context and biomass to electricity in California

• Grants and other programs
  – Forest Service Woody Biomass Utilization Grant Program
  – BCAP
  – USDA sources

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Context - national

• Increased Federal interest in “wood to energy” and “bioenergy” based on:
  – Desire for energy independence
  – A belief that conversion technologies for liquid fuel production are market ready?
  – A belief that prices for feedstock are high enough to move material from the forest?

• USDA 3 Under Secretary’s MOU Oct 2010
  – “All lands, forest restoration, value, jobs, climate”

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Context – California

- Forest Service Region 5/PSW
  - Desire to increase ecological restoration program
  - A move to Stewardship Contracting

The mission of the Forest Service is to sustain the health, diversity and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations. It is our intent to establish a regional vision and corresponding goals for Ecological Restoration.
• California already has an existing “biomass to energy” industry
• ~32 plants in CA
• ~600MW capacity
• ~25% are CHP
• 3-50MW size
• Most facilities of any state
Is the existing industry thriving or surviving?

- It depends…
  - Cogen or stand alone
  - Location
  - Feedstock cost
  - Feedstock availability
  - PPA terms and price
  - “Structural issues”

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Should we be depressed?

Maybe…
- Structural issues
- Electricity is a relatively low value market

Maybe not…
- Lumber market picking up
- Export market for logs
- Lots of new investment on the ground…
- New build projects – utility scale

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Re-starts and re-powering
Conversion of coal power plants to co-fire or use 100% biomass

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Promising small scale gasification projects

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Gasification Projects

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Remember…

Woody biomass is not just about electricity:
- Densified fuels (pellets etc)
- Heating
- Landscaping
- Animal bedding
- Post and pole
- Panel products
- Wood plastic composites
- Small sawlogs
- Lam-stock
- etc
Grants and other programs:

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How to approach grants..

Think about what you can do for the grant program rather than what the grant program can do for you

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Forest Service Woody Biomass Utilization Grant (WBU Grant)

- Established 2005
- Funded by WFHF budget
- A pilot program to see if paying for market development for woody biomass from fuels reduction projects made sense
- Managed by USDA Forest Service, State & Private Forestry, Technology Marketing Unit, located at the Forest Products Laboratory
- Established annual program – yearly cycle

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Forest Service Woody Biomass Utilization Grant – Previous Years 2005-2010

- Focus on National Forests and fuels reduction
- Typically $5m annually
- Individual grants typically $50,000-$250,000
- Equipment purchase was eligible

The program changed significantly for 2011

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Projects 2007-2010 (~$19.2m)

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Woody Biomass Utilization

California 2007-2010
13 Projects $3.9m

CA 2005-2010
$5.17m (~19% of total)

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What changed for 2011?

• Woody biomass to energy projects only
• Will only fund “engineering studies”
• Up to $250k per project
• Total budget $3.7m
• Limit on number of applications submitted from each FS Region
• Single stage submission process
• Need to have feasibility study complete
• Need to have feedstock supply study complete

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The future of the WBU

• 2011 applications received – need a budget to fund them
• Program is included in the President’s 2012 budget
• Likely to have a continued focus on energy
Further Information


- Questions/help:
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Other Opportunities

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Biomass Crop Assistance Program

• 2008 Farm Bill Energy Program
• Run through Farm Services Agency (FSA)/Commodity Credit Corporation
• Provides a match payment of up to $45/BDT for the collection, harvest, storage and transportation of biomass to a qualified biomass conversion facility (heat, power, bio-based products or liquid fuels)
• May get funded in 2011?

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BCAP - 2011

• 2009/10 recap:
  – 453 facilities
  – 5,394 contracts
  – $235m spent (FY’09 & ’10)
2010 California qualified conversion facilities

- 38 facilities in CA (8.4% of national)
- 291 contracts
- $27.73m spent (FY’09 & ’10) (11.8%)
• Earmarks ("regional priorities")
• Others:
  – Community Wood Energy Program
  – SBIR (R+D)
  – USDA RBEG
  – USDA RBOG
  – USDA loan guarantees (B&I, REAP etc)
  – USFS/DOE FEMP